The College of Graduate Studies and the College of Information Technology Cordially Invite You to a
Master Thesis Defense

Entitled

ENHANCING CYBERSECURITY AWARENESS IN THE UNITED ARAB EMIRATES: AN ASSESSMENT OF CURRENT PRACTICES AND THE DEVELOPMENT OF AN AI-ENHANCED MOBILE APPLICATION

by

Meera Alalawi
Faculty Advisor
Dr. Saed Alrabaee
College of Information Technology

Date & Venue

Thursday, 4 April 2024
Room 1005, H4 Building

Abstract

In today's interconnected world, individuals, private corporations, public institutions, and governments face increasingly sophisticated cyber threats and attacks, highlighting the critical need for individuals and organizations to understand cybersecurity comprehensively. Cyberattacks have affected many countries and infrastructures in different sectors worldwide, including the United Arab Emirates (UAE), which has become a main target for cybercrime due to its booming economy and tourism. The UAE considers cybersecurity an increasingly critical issue in our digital world, and increasing cybersecurity awareness among residents is essential to protect themselves and their organizations from cyberattacks. The primary objectives of this study are to identify key challenges and gaps in school cybersecurity curricula and university program outcomes, evaluate the current state of cybersecurity awareness among individuals in the UAE through a survey, and develop an AI-enhanced mobile application to address the identified cybersecurity awareness gaps among individuals in the UAE. The study's results identified gaps in the Ministry of Education's (MoE) curriculum for grades 1 to 12 in UAE public schools, highlighting a need for more direct, in-depth cybersecurity education to equip students with the skills to navigate evolving cyber threats. Additionally, while UAE universities offer a range of cybersecurity programs, challenges persist in aligning these curricula with international standards, ensuring practical experience, and updating content to reflect the latest cyber threats. The cybersecurity awareness survey further uncovered diverse levels of understanding and various practices among UAE residents, pointing out huge misconceptions and inconsistent cybersecurity practices. These findings underscore the urgent need for enhanced cybersecurity education and practices. In response, an AI-enhanced mobile application was developed to address these gaps tailored to each individual's unique needs, offering tailored cybersecurity education content, including news updates, a roadmap for certifications, interactive tasks and quizzes, etc. Utilizing AI, the app provides personalized responses and assistance, fostering a more informed and secure digital environment for UAE residents.

Keywords: Cybersecurity, Awareness, Education, Mobile Application, Artificial Intelligent.